

UNITED STATES DISTRICT COURT  
DISTRICT OF MINNESOTA

Sleep Number Corporation,

Plaintiff,

v.

Steven Jay Young; Carl Hewitt; UDP Labs,  
Inc., a Delaware Corporation,

Defendants.

Court File No. 20-cv-1507-NEB-ECW

**DEFENDANTS STEVEN JAY YOUNG,  
CARL HEWITT, AND UDP LABS,  
INC.’S OPPOSITION TO PLAINTIFF  
SLEEP NUMBER CORPORATION’S  
MOTION FOR PRELIMINARY  
INJUNCTION**

**I. INTRODUCTION**

Plaintiff Sleep Number Corporation’s (“Sleep Number”) motion for preliminary injunction should be denied. It is entirely without merit and comes nearly seven months after filing this case. Sleep Number seeks an extraordinary and unprecedented order (1) requiring Defendants to stall prosecution on all of its pending patent applications by filing extensions and continuation applications (or cede control of prosecution indefinitely to a trustee) and (2) seek and obtain Court approval before filing any additional patent applications. Sleep Number’s proposal, if granted, would force Defendants to take actions that would reduce the term and value of any patents that may issue, and in turn, and harm its business. Sleep Number’s proposed injunction would cause significant harm to UDP Labs, Inc. (“UDP”), as it hamstring UDP’s efforts to protect the technology it developed and obtain funding as a groundbreaking new technology business. Such relief is unsupported by laws and the facts of this case.

Sleep Number is not, as it argues, merely trying to preserve the status quo through its proposed injunction. It instead seeks to kneecap its former employees and their new startup venture and foreclose their effort to protect the groundbreaking innovations of the UDP. The form of relief requested—which includes a mandatory injunction forcing Defendants to take affirmative, harmful actions before the patent office—carries an extraordinarily high burden of proof. Sleep Number is unable to meet its burden for both its prohibitory and mandatory injunction demands.

**First**, Sleep Number has no likelihood of succeeding on the merits of its declaratory judgment and breach of contract claims, because UDP’s patent applications do not address technology Sleep Number can claim as its own. The facts here are fairly straightforward. Defendants Steve Young (“Young”) and Carl Hewitt (“Hewitt”) are serial entrepreneurs. They sold their previous company, BAM Labs, to Sleep Number. After several years working for Sleep Number, they wanted to start a new company. Defendants Young and Hewitt entered into Consulting Agreements with Sleep Number to facilitate their transition out of Sleep Number as they started their new company, UDP. The Consulting Agreements limited Young and Hewitt’s role at Sleep Number to a “Product Development Scope” which was narrowed to a particular field, namely “sleep.” Within the narrow “sleep” category, the “Product Development Scope” was further narrowed to exclude technologies related to blood-pressure monitoring and the detection of sudden infant death syndrome (“SIDS”). The Consulting Agreement terminated on November 15, 2018.

All of the patent applications at issue in this case fall into four areas not covered by the Product Development Scope. Specifically, the patent applications at issue here were

(1) directed to blood pressure monitoring and detection of SIDS, (2) not related to sleep, (3) developed after the Consulting Agreements terminated, and/or (4) were developed by others not subject to the Consulting Agreement.

**Second**, Sleep Number cannot show irreparable harm because of its extraordinary delay. This action has been pending for nearly seven months. Sleep Number has known about these inventions and patent applications for years and indeed discussed them in their complaint and amended complaint. Sleep Number vaguely speculates that it might suffer harm if Defendants continue to prosecute their patent applications, but Sleep Number is unable to identify a single instance of imminent or certain harm.

**Third**, the balance of equities favors UDP and heavily disfavors granting injunctive relief. The harms identified by Sleep Number are speculative, while Defendants will suffer undeniable and substantial harm if Sleep Number's injunction is granted. Preventing UDP from filing additional patents, and requiring UDP to delay and even abandon its applications would represent a significant loss to UDP, including limiting its ability to secure constitutionally protected exclusive rights, investment funding and reputational damage, because it cannot promote its technology leadership as evidenced through its patent applications.

**Finally**, Sleep Number's proposed injunction is against the public interest because the injunction stifles innovation and the inventions at issue are related to healthcare. This lawsuit has already forced UDP to postpone important Heart Failure and COVID-19 monitoring trials.

## II. STATEMENT OF FACTS

### A. Defendants Young and Hewitt

Defendants Young and Hewitt are serial entrepreneurs. Young received a bachelor's degree in Electrical and Computer Engineering from Carnegie Mellon University in 1986. Declaration of Steve Young ("Young Decl.") ¶2. After graduating from college, Young joined Apple Computer. *Id.* He designed factories for Apple and automated the manufacturing of the iconic device, the Apple Macintosh. *Id.* He later developed the product concept for Apple's groundbreaking Duo and PowerBook products. *Id.* One of his products was named Business Week's "Product of the Year" in 1992. In 1997, eager to tackle a new adventure, he left Apple and co-founded Cepheid Corporation, a company founded to improve diagnostic testing for medical patients. *Id.* He acted as a Director of Engineering at Cepheid. *Id.* At Cepheid, Young developed a system to detect infectious diseases by utilizing DNA analysis. *Id.* He also developed a product currently used by the United States Post Office to detect the presence of anthrax bacteria sent through the mail. *Id.* Ready for a new challenge, he left Cepheid in 2000 to join another company, Digeo, as the Vice President of Hardware Engineering and Manufacturing. *Id.* Digeo developed technologies to integrate media platforms through the use of digital media recorder devices and tools. *Id.* Digeo was also highly successful and was awarded the prestigious "Best of Show" award in the 2002 CES conference. *Id.* Digeo ultimately was acquired by Charter Communications. *Id.* In 2005, he co-founded BAM Labs. *Id.*

Hewitt's background is similarly impressive. Hewitt has a B.S. in Computer Engineering from University of California, Santa Cruz and a Master of Arts degree in

International Policy Studies from the Middlebury Institute of International Studies. Declaration of Carl Hewitt (“Hewitt Decl.”) ¶2. Like Young, he started his career at Apple. *Id.* He oversaw the development of the operating system development for Apple’s first PowerPC-based Macintoshes. *Id.* He later left to develop software at Power Computing, a groundbreaking company building Macintosh clone devices. *Id.* In 1997, he left Power Computing to co-found Kerbango, where he was also the Chief Technology Officer. *Id.* Kerbango designed and developed the first standalone Internet radio tuning service. *Id.* Kerbango was ultimately acquired by 3Com, and Hewitt remained for a year. *Id.* Thereafter, Hewitt went back to school for his graduate degree and spent a few years doing software consulting and coding for a number of start-ups. *Id.*

#### **B. Young and Hewitt Innovate at BAM Labs**

In 2006, Young founded BAM Labs. Young Decl. ¶4. In 2009, Hewitt joined BAM Labs as Vice President of Engineering. *Id.* BAM Labs developed technology that monitored infants’ body vibrations while they were in bed and analyzed those vibrations to extract heart rate and respiration rate. *Id.* BAM Labs was issued a number of patents, in the United States and internationally, for its innovative designs. *Id.*

In 2012, BAM Labs partnered with Sleep Number. *Id.* ¶3. BAM Labs developed a system for monitoring sleep quality in Sleep Number’s adjustable air beds. *Id.* BAM Labs adapted its prior infant air mattress bio-sensing technology to work with Sleep Number air mattress beds. *Id.* Defendants Young and Hewitt helped develop and commercialize Sleep Number’s “SleepIQ” technology, creating smart beds that tracked and helped improve a

user's sleep. *Id.* The SleepIQ technology has been highly successful for Sleep Number. *Id.*

### **C. Defendants Young and Hewitt Worked for Sleep Number**

BAM Labs was so successful that Sleep Number decided to purchase BAM Labs in 2015. *Id.* ¶7. BAM Labs was then renamed SleepIQ Labs, Inc. ("SleepIQ"). As part of the acquisition, Young and Hewitt were named Chief Technology Officer and Vice President of Engineering, respectively, at SleepIQ. *Id.* Young and Hewitt continued to develop successful products for SleepIQ for two more years. *Id.* ¶8. In 2017, Young and Hewitt wanted to seek new challenges, and decided to start an entirely new venture. *Id.*

In November 2017, Young and Hewitt told Sleep Number's management that they wanted to leave and form a new company. *Id.* In view of their successful track record with the SleepIQ technology and products, and because of concerns over transitioning work to other employees, Sleep Number asked that Young and Hewitt assist Sleep Number on a limited basis as consultants. *Id.* Sleep Number asked Young and Hewitt to help train other Sleep Number engineers and support transitioning their duties. *Id.* Young and Hewitt agreed to assist Sleep Number, so long as they were free to pursue their own research and development and to form a new company. *Id.* Young and Hewitt negotiated agreements with Plaintiff that allowed them to pursue their new venture while continuing to provide limited consulting services to Plaintiff. *Id.*

### **D. The Consulting Agreements**

On December 4, 2017, Young and Hewitt each signed a confidential Consulting Agreement with Plaintiff (together, the "Consulting Agreements"). *Id.* ¶9; Dkts. 125-1,

125-2. The Consulting Agreements required Young and Hewitt to work a gradually decreasing number of hours for Sleep Number (eventually down to two days per month), focusing mostly on transitioning their duties to other Sleep Number employees and hiring replacements. Young Decl. ¶19. Young and Hewitt performed their duties diligently, continued to develop SleepIQ technology, and assigned any sleep-related inventions to Sleep Number. *Id.* ¶¶19, 44; *see also id.*, Ex. B (assignment documents).

The Consulting Agreements also laid out the precise scope of Young’s and Hewitt’s obligations with respect to their new venture. *Id.* ¶10. The Consulting Agreements included a restriction against using any of Plaintiff’s confidential information in Defendants’ new venture and an agreement to assign inventions conceived or developed by them that fell within the “Product Development Scope” during the term of the Consulting Agreements. *See* Dkts. 125-1, 125-2 at §§ 1.E., 5; Young Decl. ¶10. The Consulting Agreements narrowly defined “Product Development Scope” as:

Product development, ideation, and/or implementation of any ideas conceptions, inventions, or plans relating to sleep, mattresses, bedding, sleep monitoring, health or wellness as it relates to sleep (including biometric monitoring relating to sleep), or bedroom or sleep technologies during the Term of this Agreement ("Product Development Scope"). Notwithstanding the foregoing, Product Development Scope does not include: (i) monitoring technologies for sudden infant death syndrome; or (ii) blood pressure monitoring technologies.

*Id.* at §1.E.

The Product Development Scope is limited to certain “sleep” related technologies. Specifically, the Product Development Scope is expressly limited to specific types of

products (including bedding, monitoring, health or wellness) as they related to sleep. *See id.* It also expressly excluded any sleep-related technologies related to SIDS or blood pressure. *Id.* Young and Hewitt specifically bargained for these carveouts so that they would be free to pursue their innovative medical device technologies at UDP without concerns over the ownership of the resulting intellectual property. Young Decl. ¶10. At the time the parties signed the Consulting Agreement, Sleep Number was aware of Defendants' general goals and business plans. *Id.* ¶11.

From the beginning, the plan for UDP was always to make medical devices, such as those for tracking blood pressure or monitoring SIDS. *Id.* While these inventions could be used in a bed (or other substrates), and may be used while the subject is asleep, the inventions are wholly unrelated to tracking sleep, or any other product from Sleep Number. *Id.* ¶¶21, 51. Defendants' new venture related to tracking or predicting health problems, rather than sleep quality. *Id.* Monitoring blood pressure can detect early signs of heart failure, which is closely tied to high blood pressure. *Id.* ¶11. Similarly, monitoring non-varying heart rates and respiratory rates, as well as an infant's body position during sleep, can predict risk factors for SIDS. *Id.* Indeed, Defendants generally described to Sleep Number the types of technologies they would be pursuing (which ultimately was the basis for UDP's 2018 patent applications), and Sleep Number agreed to the language in the Consulting Agreement based upon these descriptions. *Id.* ¶¶10-11.



## **E. Young and Hewitt’s Work for UDP**

### **1. UDP Research and Development 2017-2018**

While Young and Hewitt continued to consult for Sleep Number, they began to research and develop new technologies for UDP. Young Decl. ¶¶12-14. In December 2017, Young and Hewitt met with a heart failure specialist from Kaiser Permanente to discuss passive ways to monitor and detect heart failure. *Id.* ¶15. Young and Hewitt had theorized that load cells<sup>1</sup> under beds or chairs could be used to sense weight, heart-rate, and blood pressure—key metrics for monitoring and detecting heart failure and potentially SIDS. *Id.* ¶¶12-14. The conversation with the heart failure specialist was wholly directed to monitoring and detecting heart failure, and there was no mention or discussion of any sleep-related technologies. *Id.* ¶15.

On January 19, 2018, Young and Hewitt formally incorporated UDP, with Young as Chief Executive Officer and Hewitt as Chief Technology Officer. *Id.* ¶16. Throughout 2018, UDP (with Young and Hewitt as part of a larger team<sup>2</sup>) focused its research and development efforts on developing a congestive heart failure monitor using load sensors, largely relying on public research papers and testing various ideas. *Id.* ¶17. Congestive

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<sup>1</sup> “Load cells” are devices that sense force, such as weight or pressure, and converts them into digital values for analysis. Young Decl. ¶12. A simple example of a load cell is a digital scale, which uses a load cell to feel pressure from a person’s body, and applies a mathematical function to digitally determine the weight of the person. *Id.*

<sup>2</sup> At this time in 2018, the team included Jonathan Olson (consultant to UDP), Al Luckow (informal contributor), and Bob Dobkin (informal contributor). Young Decl. ¶17. Later, in April 2019, UDP officially hired Mike Puckett to join the team; in June 2019, UDP hired Eric Hewitt; and in July 2019, UDP hired Omid Saydi. *Id.* ¶38. In January 2020, Mr. Luckow formally joined as an employee. *Id.*

heart failure often results from high blood pressure, and Young and Hewitt theorized that using load sensors to detect high blood pressure could diagnose the risk of congestive heart failure. *Id.* ¶¶12-14.

To develop a prototype, Young and Hewitt used publicly available load cell sensor and circuitry designs,<sup>3</sup> and manufactured the load cells using off-the-shelf components. *Id.* ¶17. The UDP team used no information—confidential or otherwise—from Sleep Number, and did not do any work using Sleep Number resources. *Id.* ¶18. Neither Young nor Hewitt had done any similar work for Sleep Number in the past, and they were not paid by Sleep Number for this work. *Id.* Indeed, Young and Hewitt personally paid for all of the materials they used and licensed third-party tools to help develop new software programs. *Id.*

In 2018, Young also began investigating other types of sensors, such as a pulse oximeter in combination with load cells, to improve blood pressure monitoring as part of the congestive heart failure monitoring system. *Id.* ¶20. Young read numerous research papers on such sensors and did not rely on any Sleep Number information to develop this idea. *Id.*

On March 19, 2018, Young and Hewitt met with Sleep Number's Chief Product Officer, Annie Bloomquist, at Morton's Steak House in San Jose, California. *Id.* ¶21. Young and Hewitt disclosed their work at UDP on a congestive heart failure monitoring

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<sup>3</sup> The original sensors and circuits that Young and Hewitt used were found via an internet search and the designs are available at <https://www.rs-online.com/designspark/learning-about-load-cells>. Young Decl. ¶17.

system, and made clear that all the work was done for UDP and belonged to UDP. *Id.* ¶22. Ms. Bloomquist did not express any concerns about UDP’s work, or allege that it fell within the Product Development Scope of the Consulting Agreements. *Id.* Young and Hewitt asked Ms. Bloomquist if Sleep Number would like to partner with UDP to jointly develop the technology. *Id.* Ms. Bloomquist rejected the offer and rhetorically asked something along the lines of “Couldn’t we [Sleep Number] just do this on our own?” *Id.* Despite this experience, Young and Hewitt continued to informally apprise Sleep Number of their continued research and development projects at UDP. *See id.* ¶29.

Throughout the first half of 2018, Young and Hewitt and the rest of the UDP team continued to develop congestive heart failure monitoring technology. *Id.* ¶23. UDP purchased a license for a programming tool called LabVIEW, a commercially available platform and programming language, to analyze raw data from the sensors and convert it into meaningful metrics for monitoring congestive heart failure (e.g., determining weight, heart-rate, and blood pressure). *Id.* None of this technology had anything to do with sleep or sleep monitoring. *Id.* ¶¶21, 28.

Young began writing code on LabVIEW as part of UDP’s research and development effort. *Id.* ¶23. Young and Hewitt also tasked another UDP contractor, Jonathan Olson, with creating an improved mechanical design for load sensors based on a design Young found on the internet. *Id.* ¶24. In August 2018, Olson developed the first mechanical design of a sensor with one load cell and then modified it to include four load cell sensor components. *Id.* Hewitt and Young met with the rest of the UDP team to discuss further refining their system, and they collectively determined that UDP should

attempt to patent its product to protect its intellectual property and to position itself as an innovator. *Id.* ¶25.

In September 2018, while development on the system continued, Young and Hewitt held calls with Bruyere Research Hospital to discuss a congestive heart failure monitoring trial using the load cells that Olson had helped develop. *Id.* ¶26. Although the design was not yet finalized, the team believed that a real-world test was a great opportunity to identify ways to improve the congestive heart failure monitoring system. *Id.* None of this work in 2018 was done on Sleep Number time, with Sleep Number employees, at Sleep Number’s facilities, or using Sleep Number resources. *Id.* ¶18.

In October 2018, UDP filed its first provisional patent application, U.S. App. No. 62/742,613 (“the ’613 Provisional”), covering the congestive heart failure monitoring system that Young and Hewitt, along with the UDP team, had developed. *Id.* ¶27; Dkt. 119-1. The ’613 Provisional discusses using load sensors to monitor biometric signals for the purpose of monitoring congestive heart failure. Dkt. 119-1 at 37 (describing sensors and listing congestive heart failure monitoring as the lone example of its application). The ’613 Provisional discloses that the inventive system analyzes “signals generated from the motion of a subject or subjects, including their weight, position, heart and respiratory system [to determine] cardiac and respiratory signals.” *Id.* at 22. It also notes that “[t]he sensors are designed to be placed under, or be built into an object, such as a bed, couch, exam table, piece of stationary machinery, floor, wall, etc.” *Id.* There is no mention of sleep, mattresses, bedding, or sleep monitoring. *See generally id.*; *see also* Young Decl. ¶ 28.

On October 25, 2018, at Sleep Number's request, Young and Hewitt travelled to Minneapolis to meet with Sleep Number's executives to discuss the UDP congestive heart failure monitoring system. *Id.* ¶29. The meeting was attended by Shelly Ibach (Chief Executive Officer), Annie Bloomquist (Chief Product Officer), and Sam Hellfeld (Chief Legal Officer) of Sleep Number. *Id.* During the meeting, Young and Hewitt presented a PowerPoint describing the UDP congestive heart failure monitor, as well as concepts for other types of medical monitoring they may pursue in the future (e.g., "Non-Invasive Blood Sugar (Diabetes) Monitor"). *Id.*, ¶29, Ex. A at 3. Young and Hewitt again inquired whether Sleep Number was interested in working with UDP on a joint project or acquiring or licensing its technology, but Sleep Number stated they were not interested. *Id.* ¶30; *see also id.*, Ex. A at 5.

Sleep Number's behavior at the meeting made Young and Hewitt uncomfortable. In part because of this concerning behavior, Young and Hewitt asked Sleep Number to add an addendum to the Consulting Agreements to expressly state that the UDP's congestive heart failure monitoring system was outside of the Product Development Scope. *Id.* ¶¶29-31. Young and Hewitt believed such a statement was non-controversial and would be helpful in seeking venture capital funding. *Id.* The Sleep Number executives refused to add this clarification, and for the first time contended that any research and development conducted related to heart failure monitoring by UDP was within the Product Development Scope. *Id.* Indeed, in its motion, Sleep Number admits it claimed it owned *all* ideas and inventions that Young and Hewitt developed during the consulting period regardless of whether such inventions fell under the Product Development Scope, in contravention of

the Consulting Agreements. *See* Dkt. 124 at 7 (“Sleep Number reminded them that, under the Consulting Agreements [. . .] Sleep Number owned the ideas and work generated during their consultancy”). Young and Hewitt felt they had no choice but to terminate their Consulting Agreements, and did so on November 15, 2018. Young Decl. ¶31.

In December 2018, Defendants realized the sensors and algorithms for their congestive heart failure system were not sophisticated enough to commercialize because they could not capture sufficiently precise signals. Young Decl. ¶32. Though later research that continued through 2020, Young and Hewitt also learned of substantial prior art, including a very similar load sensor commercially available in the market, which caused them great concern. *Id.* ¶¶28, 48. Young and Hewitt reluctantly decided to abandon the development of its sensors and software. *Id.* ¶32.

UDP then started a new effort to develop entirely new sensors with entirely new technology in 2019. *Id.* ¶33. The UDP team created a new software library and began writing new code, using a different coding language than before (C instead of LabVIEW). *Id.* Young began researching different types of sensors they could use as replacements. *Id.* Young and Hewitt also began to talk to various investors to raise money to help develop the new congestive heart failure monitoring system. *Id.* ¶34.

## **2. UDP Research and Development 2019-2020**

In January 2019, the UDP team met to discuss using new types of sensors to replace the previous sensors. *Id.* ¶35. The team collected dozens of publicly available research papers to analyze useful work done in the space. *Id.* Based on this discussion and research,

Young and Hewitt designed a new custom logic board connected to a pulse oximeter sensor that could determine a person's blood pressure without using a cuff. *Id.*

UDP also began developing an entirely new software architecture based on an open-source messaging library known as Next Generation Nanomsg ("NNG"). *Id.* ¶36. Over the next few months, UDP employees and advisors, including Mike Puckett who did much of the work, wrote new code. *Id.* Some of this code was used to calculate the weight and center of mass of a person as part of the congestive heart failure monitoring system, such that the system could monitor multiple people at once (which the previous sensors/software failed to do). *Id.* As UDP's sensor designs and software became more advanced, it envisioned using its system to monitor additional health problems, such as Chronic Obstructive Pulmonary Disease (COPD) and atrial fibrillation. *Id.*

To protect the new and improved system design, UDP filed its second provisional application on February 12, 2019, U.S. App. No. 62/804,623 ("the '623 Provisional"), titled "Systems and Methods for Utilizing Gravity for Biometric Monitoring." *Id.* ¶37; Dkt. 119-2. The '623 Provisional included improvements to the sensors and software, and a number of new diagrams and disclosures compared to the '613 Provisional. *See, e.g.,* Dkt. 119-2 at 14-19, 22 (discussing new sensors, with figures, and describing new functionality); Young Decl. ¶37. All of the newly added inventive ideas and systems in this application were created after Young and Hewitt terminated their consulting relationships with Sleep Number. Young Decl. ¶37. Like the '613 Provisional, the '623 Provisional discusses monitoring for congestive heart failure, but also discusses monitoring

for other illnesses or medical events, such as atrial fibrillation, chronic obstructive pulmonary disease (COPD), sleep apnea, restless leg syndrome, etc. Dkt. 119-2 at 13.

In March 2019, UDP opened its first office in Los Gatos, California and began making a more serious push to attract investors. Young Decl. ¶38. UDP began hiring new employees<sup>4</sup> and further developing its new sensors, software, cloud architecture, and algorithms to analyze raw sensor data and convert it into useful data (such as measuring vitals of a person). *Id.*

Based upon work performed after the Consulting Agreements were terminated, UDP filed a number of patent applications to protect its new inventions. *Id.* ¶39. These included U.S. App. Nos. 16/549,367 (filed Aug. 23, 2019; “the ’367 App.”), 16/551,087 (filed Aug. 26, 2019; “the ’087 App.”), and 16/595,848 (filed Oct. 8, 2019; “the ’848 App.”). Dkts. 119-3, 125-5, 125-4. Each of these applications originally claimed priority to both the ’613 Provisional and ’623 Provisional and were still largely directed to the biometric monitoring of health-related events through load sensors, with additional disclosures of the improved sensors and functionalities first described in the ’623 Provisional. *Id.*; Young Decl. ¶39. As this post-consulting work had developed to also allow for monitoring of health problems during sleep, the newer patent applications discussed using collecting data during sleep times (as well as other times), including heartbeat, blood pressure, weight gain and loss, and respiration, to diagnose illness. Dkt. 125-4 (’367 App.) ¶ 38; Dkt. 125-5 (’087 App.) at ¶ 42; Dkt. 119-3 (’848 App.) at ¶ 38.

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<sup>4</sup> See fn.2, *supra* at 8, discussing UDP team members and hiring dates.



Throughout the second half of 2019, Young and UDP employee Omid Sayadi discussed an idea for converting ballistocardiogram (“BCG”) signals into pseudo-electrocardiogram (ECG) signals for health monitoring. Young Decl. ¶41. To protect this new idea, UDP filed U.S. App. 16/777,385 (filed Jan. 30, 2020; “the ’385 App.”). *Id.* ¶47; Dkt. 119-4. The ’385 Application was a continuation-in-part of the ’848 App. and added numerous disclosures—both text and figures—on using BCG data to obtain cardio-respiratory data. *Compare, e.g.*, Dkt. 119-4 (’385 App.) at Abstract, ¶¶ 5, 23, 30, 69-74, 78-85, 92-98, Figs. 7-12, 14-15 (disclosures related to BCG) *with* Dkt. 119-3 (’848 App.) (no disclosures of BCG). Each claim of the ’385 patent discusses using BCG data and is not related to sleep technology or sleep monitoring. *See* Dkt. 119-4; Young Decl. ¶47.

**F. Sleep Number Asks Young and Hewitt to Sign Inventorship and Assignment Documents**

In August 2019, Sleep Number reached out to Young and Hewitt, informing them that Sleep Number had filed a number of new patent applications, and asking them to sign various documents related to inventorship and assignment of their rights to Sleep Number. *Id.* ¶42.

Young and Hewitt asked Sleep Number for more information on why it believed they were inventors before signing any documents. *Id.* ¶43. Sleep Number, however, refused to share the patent applications with Young and Hewitt, so they were unable to ascertain whether they were truly inventors of any pending Sleep Number application. *Id.* Finally, in September, Sleep Number agreed to share drafts of the pending patent applications for Young and Hewitt to review. *Id.*

Young and Hewitt spent a significant amount of time reviewing the various claims of the numerous Sleep Number patent applications and noting which applications/claims included inventive concepts or elements that they had developed while at Sleep Number. *Id.* ¶44. Young and Hewitt provided the necessary signed paperwork and assignment documents for patent applications and claims for which they believed they were co-inventors, but refused to sign false declarations attesting that they were inventors of the other patent applications/claims that they had not contributed to. *Id.*; *see also, e.g., id.*, Ex. B (inventorship and assignment documents signed by Young). Hewitt and Young asked to continue to be involved in the prosecution of the patents in their name, but Sleep Number refused. *Id.* ¶44. Nowhere in this set of patent applications did Sleep Number attempt to claim any inventions related to load sensors or congestive heart failure monitoring systems. *Id.* ¶¶45-46.

At the same time that these discussions were going on, unbeknownst to Defendants, Sleep Number had commissioned its own development of load cell-based systems, but directed to sleep-monitoring. It filed at least one provisional patent application related to this technology, after Young and Hewitt informed Sleep Number that they were going to terminate the Consulting Agreements but one day before the formal termination. *Id.* ¶46. Hewitt and Young were not listed as inventors on the patent, and Sleep Number has never contacted them asking them to claim they were inventors on that patent application. *Id.*

### **G. UDP Files Amendments to Pending Patent Applications**

When Plaintiff initiated this lawsuit, Young and Hewitt were confused as to why Sleep Number believed it owned any of UDP's inventions that post-dated the Consulting

Agreements (and were developed without use of any Sleep Number confidential information). *Id.* ¶58. Young and Hewitt knew that all of their currently pending patent applications were based upon work done in 2019 and 2020, as they had abandoned all work done prior to 2019 during the redesign of the system. *See* Section II.E.2, *supra* (discussing UDP restarting their design with new sensors, software, and cloud architecture developed in 2019-2020); Young Decl. ¶¶33-36. They also realized that the pending patent applications could not reasonably claim priority to the '613 provisional filed in 2018, which only disclosed the old system that had been abandoned. *Id.* ¶48.

In view of their ongoing obligations to disclose prior art to the Patent Office, and to clearly delineate the novel inventions conceived in 2019 (after the previous designs were abandoned), UDP filed amendments to the pending applications, disclaiming priority to the '613 provisional. *Id.*

Defendants intend to continue prosecuting the patents in their normal course of business to protect their inventions and position in the market. *Id.* ¶49. Obtaining issued patents is extremely important to UDP as a company, for both business purposes as well as fundraising and investment. *Id.* Any allegation that it intends to thwart the prosecution of its own patent applications to somehow harm Sleep Number is absurd. *Id.* ¶¶49-50. UDP has a strong interest in protecting its technology leadership and the work it has done, which it believes will save many lives. *Id.*

## **H. UDP's Current Business Position**

UDP is a start-up company in a highly technical space with no current commercial products focused on research and development. *Id.* ¶51. Because of this, much of the

company's value is based on its intellectual property. *Id.* ¶¶53-55; *see also, e.g.*, John E. Dubiansky, *An Analysis for the Valuation of Venture Capital-Funded Startup Firm Patents*, 12 B.U. J. SCI. & TECH. L. 170, 175 (2006). UDP is currently working on new technology related to disease detection that is unrelated to both Sleep Number's work/products, and to UDP's work from 2018. *Id.* ¶51.

It would be extremely difficult, or outright impossible, for a company such as UDP to raise money from investors, or retain current investors, if it is unable to file new patents on inventions during the pendency of this case. *Id.* ¶52. If UDP cannot raise capital, it will be forced to shut down or lay off employees. *Id.* Indeed, the contingent risk of this lawsuit and injunction motion has caused investors to refuse to invest until these issues are resolved. *Id.*

Additionally, it would be difficult to recruit employees to a start-up if they cannot obtain a patent for their work because of an injunction. *Id.* ¶58. Being a named inventor on a patent is important in both the technical and medical industries. *Id.*; *see also, e.g.*, *Chou v. Univ. of Chicago*, 254 F.3d 1347, 1359 (Fed. Cir. 2001) ("being considered an inventor of important subject matter is a mark of success in one's field. . . . Pecuniary consequences may well flow from being designated as an inventor"); *Pedersen v. Geschwind*, 141 F. Supp. 3d 405, 417 (D. Md. 2015) ("the reputational interest recognized by a handful of courts and now sanctioned by the Federal Circuit is an interest in the benefits that flow from inventorship: public recognition; vocational leverage; pecuniary gain. These benefits are concrete and fairly traceable to named inventorship on a patent."). Any current or prospective employee would be discouraged from working with UDP,

because that person would risk losing the opportunity to patent and monetize their contributions. Young Decl. ¶58. Similarly, it would be difficult to partner with, or sell UDP's medical devices to a healthcare entity if UDP does not have valid patents protecting its technologies. *Id.* ¶57.

UDP's currently pending patent applications have fixed filing and priority dates, and thus the 20-year statutory term of any eventually issued patent shrinks the longer it remains in prosecution. MPEP §2701; 35 U.S.C. 154; *see also* Declaration of Francine Nesti ("Nesti Decl.") ¶7. Additionally, being unable to file any new patent applications during this case, or even delaying filing a patent while it petitions the Court for permission to file, would cause UDP to lose the priority date for any inventions it conceives of in that time period and potentially render the application susceptible to additional invalidating prior art. Nesti Decl. ¶¶7-9. If UDP's proprietary designs and inventions are not properly protected, any large corporation can easily copy them and produce them for far less than UDP could, which would effectively force UDP out of business. Young Decl. ¶56.

Sleep Number filed this lawsuit on July 2, 2020. On January 15, 2021, Sleep Number filed this motion for injunctive relief.

### **III. LEGAL STANDARD**

A preliminary injunction is an extraordinary remedy never awarded as of right that may only be issued upon a clear showing that the plaintiff is entitled to such relief. *Winter v. Nat. Res. Def. Council, Inc.*, 555 U.S. 7, 24, 129 S. Ct. 365, 376, 172 L. Ed. 2d 249 (2008). In considering a motion for preliminary injunction, the Court must weigh and consider four factors: (1) the movant's likelihood of success on the merits; (2) the threat of

irreparable harm to the movant if the injunction is not granted; (3) the balance between that harm and the harm that granting the injunction will inflict on the other parties; and (4) the public interest. *Dataphase Sys., Inc. v. C L Sys., Inc.*, 640 F.2d 109, 114 (8th Cir. 1981); *Phyllis Schlafly Revocable Tr. v. Cori*, 924 F.3d 1004, 1009 (8th Cir. 2019). The party seeking injunctive relief bears the burden of proving these factors weigh in its favor. *Mgmt. Registry, Inc. v. A.W. Co., Inc.*, 920 F.3d 1181, 1183 (8th Cir. 2019).

An injunction cannot issue if there is little or no chance of success on the merits. *Mid-Am. Real Estate Co. v. Iowa Realty Co.*, 406 F.3d 969, 972 (8th Cir. 2005). “Therefore, in order to obtain a preliminary injunction, the moving party must show that it has a ‘fair chance of prevailing’ on its claims.” *In re Medtronic, Inc. Derivative Litig.*, 68 F.Supp.3d 1054, 1060 (D. Minn. 2014). But even if movant raises questions “so serious and difficult as to call for more deliberate investigation,” courts do not issue preliminary injunctions unless the other three factors “strongly favor the moving party.” *Maxim Def. Indus., LLC v. Kunsky*, No. CV 19-1225 (PAM/LIB), 2019 WL 2232592, at \*2 (D. Minn. May 23, 2019) (citing *Dataphase*, 640 F.2d at 113) (internal brackets omitted).

When a proposed preliminary injunction does not merely preserve the status quo but instead interferes with a company’s normal business operations, courts frequently conclude the balance of hardships tilts in the defendant’s favor. *City Cycle IP, LLP v. Caztek, Inc.*, 2012 WL 3656443, at \*9 (D. Minn. Aug. 24, 2012) (“in order to grant the relief requested, it would be necessary to disturb the status quo [which] further tips the balance of harms in favor of denying preliminary injunctive relief.”). Mandatory injunctions also face heightened burdens of proof as to harm and are only granted in the rarest cases. *See*

*TruStone Financial Federal Credit Union v. Fiserv, Inc.*, 2014 WL 12603061, at \*1 (D. Minn. Feb. 24, 2014) (“Moreover, the burden is higher on a party that seeks a mandatory preliminary injunction”); *see also National Association for Advancement of Colored People, Inc. by and through Myrtle Beach Branch v. City of Myrtle Beach*, 383 F. Supp. 3d 603 (D.S.C. 2019) (Mandatory preliminary injunctive relief is warranted only in the most extraordinary circumstances).

#### **IV. ARGUMENT**

The facts and the law simply do not support the broad, harmful injunctive relief sought by Sleep Number. It seeks: (1) to effectively enjoin Defendants from prosecuting their pending patent applications, (2) to compel Defendants to affirmatively act to seek the maximum extensions possible, and abandon and re-file their applications during this case, and (3) to enjoin Defendants from filing any new patent applications without seeking and obtaining approval from this Court. In the alternative, Sleep Number requests the Court remove Defendants from prosecuting the applications entirely and appoint a trustee. It cannot identify a single court that has ever granted such draconian relief.

Sleep Number’s request for a preliminary injunction falls far short of the showing needed and, therefore, should be denied. First, Sleep Number cannot show likelihood of success on the merits because it cannot show that it has a right to the Inventions-at-Issue. Second, Sleep Number’s delay in seeking relief shows that it cannot demonstrate irreparable harm. Third, the balance of equities favors Defendants where they would be immediately harmed by the injunction, while Sleep Number’s harms are speculative. Fourth, issuing a preliminary injunction in this instance is contrary to the public interest

where the underlying patent applications and products-in-development are life-saving health monitoring technologies. Finally, Sleep Number's request for relief is unprecedented—it cannot identify another instance where the same relief has been granted, and it is thus not supported by the facts or law.

**A. Sleep Number is Not Likely to Succeed on the Merits**

Sleep Number's declaratory judgment and contract claims are premised on the incorrect notion that Hewitt and Young had an obligation to assign their patent applications under the terms of Consulting Agreements<sup>5</sup>. UDP's patent applications do not fall within the "Product Development Scope" of the Consulting Agreements, and thus Defendants were under no obligation to assign them to Sleep Number.

**1. The Consulting Agreements Do Not Cover the Inventions-at-Issue**

Plaintiff cannot show that it has any right to the Inventions-at-Issue because they are excluded from the Product Development Scope of the Consulting Agreements. The Product Development Scope states:

Product development, ideation, and/or implementation of any ideas conceptions, inventions, or plans relating to sleep, mattresses, bedding, sleep monitoring, health or wellness as it relates to sleep (including biometric monitoring relating to sleep), or bedroom or sleep technologies **during the Term of this Agreement** ("Product Development Scope"). **Notwithstanding the foregoing, Product Development Scope**

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<sup>5</sup> Plaintiff's claim for "Declaratory Judgment of Sleep Numbers' Ownership of The Inventions-at-Issue" is based solely on its argument that it owns the various patent applications under the Consulting Agreements. Dkt. 119 at ¶¶ 103-124. Similarly, Sleep Number's claim for breach of contract is based on its allegation that Defendants breached the Consulting Agreements by failing to assign the rights to the patent applications. *Id.* ¶¶ 125-142.



**does not include: (i) monitoring technologies for sudden infant death syndrome; or (ii) blood pressure monitoring technologies.**

Dkts. 125-1, 125-2, at §1.E (emphasis added). The Product Development Scope only applies only to certain categories relating to sleep and bedding, and expressly excludes inventions relating to monitoring of SIDS or blood pressure. Moreover, the Product Development Scope only applies to ideas or inventions developed “during the term of [the] Agreement.” *Id.* The Consulting Agreements are also limited to Young and Hewitt only.

The term “sleep” has a specific meaning in the smart mattress and biomonitoring industries, and experts in the field understand it as the tracking of various measurements of sleep quality. For example, the National Sleep Foundation defines monitoring sleep quality as based on four measurements: (1) sleep latency—how long it takes to fall asleep; (2) sleep waking—how often one wakes up during the night; (3) wakefulness—how long one is awake during the night; and (4) sleep efficiency—how long one spends sleeping during the night. *See, e.g., What Is Sleep Quality*, National Sleep Foundation, available at <https://www.thensf.org/what-is-sleep-quality/>. Likewise, a recent publication by the Institute of Electrical and Electronics Engineers (“IEEE”), the world’s largest technical professional organization, states that the “common sleep quality indicators” relevant to sleep monitoring are: duration of sleep, intensity of sleep, continuity of sleep, stability of sleep, frequency of sleep, and number of sleep episodes. Mondonca et al., *A Review of Approaches for Sleep Quality Analysis*, 7 IEEE Access 24527 (2019).

None of the UDP patent applications are directed to sleep, sleep quality or sleep monitoring. Young Decl. ¶40. Sleep Number contends that, because some of UDP’s

inventions can be used while a person is asleep, they are necessarily related to sleep. *See* Dkt. 124 at 15-18. But none of UDP’s inventions require that a patient be asleep, nor do they monitor anything about sleep. Plaintiff’s argument that these inventions are sleep-related because they can be used while a patient is asleep is like arguing that a design for a travel mug is car-related, because it can be used in a car. The travel mug does not represent automotive technology, in the same way that UDP’s inventions do not represent sleep technology.

*a. The ’613 Provisional*

The ’613 Provisional was the earliest patent application filed by UDP and the *only* application developed and filed during the term of the Consulting Agreements. But the ’613 Provisional is not covered by the Product Development Scope because it describes a system for monitoring congestive heart failure, and is unrelated to sleep or bedding technology.

The ’613 Provisional, does not relate to sleep, sleep monitoring, or sleep quality at all. Dkt. 119-1. It instead discusses using load sensors for the purpose of monitoring congestive heart failure, and discloses that the inventive system analyzes “signals generated from the motion of a subject or subjects, including their weight, position, heart and respiratory system [to determine] *cardiac and respiratory signals.*” *Id.* at 22, 37. It also notes that “[t]he sensors are designed to be placed under, or be built into an object, such as a bed, *couch, exam table, piece of stationary machinery, floor, wall, etc.*” *Id.* While a bed is one possible medium for the ’613 Provisional, the actual invention does not relate to sleep technology or sleep monitoring. The inclusion of a bed is only ancillary to

the invention, as the '613 Provisional does not claim to invent a new bed or even require the use of one. The '613 Provisional does not mention sleep, mattresses, bedding, or sleep monitoring at all. *See id.*

Defendants did not use any of Sleep Number's proprietary trade secrets or confidential information in developing the '613 Provisional or any of the other Inventions-at-Issue. Young Decl. ¶18. Throughout 2018, Defendants focused on developing a congestive heart failure monitor using load sensors, largely relying on publicly available research papers. *Id.* ¶17. In building a prototype, Defendants reviewed sensor and circuitry designs that were publicly available, and used off-the-shelf components such as commercially available pulse oximeters. *Id.* Defendants also wrote new computer code in LabVIEW to analyze the raw data collected from the sensors, starting from scratch using publicly available guides. *Id.* ¶23.

*b. The Remaining Inventions-at-Issue*

Sleep Number cannot show that the other Inventions-at-Issue fall within the Product Development Scope of the Consulting Agreements, because they were conceived and developed after the termination of the Consulting Agreements, were developed by other people, had nothing to do with sleep technologies, and are direct to monitoring blood pressure or for SIDS.

First, the remaining Inventions-at-Issue were developed *after* the termination of the agreement on November 15, 2018, and mark a departure from UDP's previous development efforts. Young Decl. ¶¶33-40. After the termination of the Consulting Agreements, Defendants realized the congestive heart failure system described in the '613

Provisional was not precise enough to be commercially viable. Young Decl. ¶32. Because the sensors and algorithms were not producing the accurate readings that were required to monitor health events, Defendants decided to abandon the development of its sensors and software, and start from scratch. *Id.* ¶¶32-33.

Based on this new direction, Defendants filed a second provisional application on February 12, 2019, the '623 Provisional, on their improved design for the monitoring system. Dkt. 119-2. The '623 Provisional disclosed the newly designed sensors and software developed in 2019, and included a number of new diagrams and disclosures that were not included in the '613 Provisional. *See, e.g.*, Ex. 2 at 14-19, 22.

All of the other Inventions-at-Issue were developed after the termination of the Consulting Agreements and built on the work included in the '623 Application. The '367 Application, the '087 Application and the '848 Application were filed later by Defendants and were based on work taking place in the summer and fall of 2019. Dkt. 125-4; Dkt. 125-5; Dkt. 119-3. The work that led to the '385 Application took place in December 2019, and likewise occurred after the Consulting Agreements terminated.

*Second*, each of the remaining Inventions-at-Issue named inventors who were under no obligation to assign their interests to Sleep Number, so Sleep Number cannot claim ownership. Only Hewitt and Young had agreements with Sleep Number. The '623 Provisional names Young, Hewitt, Olson, Luckow, and Dobkin as inventors; the '367 Application names Young, Hewitt, Olson, and Luckow as inventors; the '087 names Young, Hewitt, Olson, Luckow, and Dobkin as inventors; the '848 names Young, Hewitt,

Olson, Luckow, and Sayadi as inventors; and the '385 names Sayadi and Young as inventors. Sleep Number cannot claim ownership over these applications for this reason.

*Third*, the remaining Inventions-at-Issue are not covered by the Product Development Scope because they do not deal with sleep, and fit into the provision's exclusions for blood pressure monitoring and SIDS. The '623 Provisional is not related or focused on sleep or sleep monitoring. The '623 Provisional discusses monitoring for congestive heart failure, and also discusses monitoring for other illnesses or medical events, such as atrial fibrillation, chronic obstructive pulmonary disease (COPD), sleep apnea, restless leg syndrome, etc. *Id.* at 13. These conditions each relate to blood pressure, a subject matter area explicitly permitted to Defendants. Dkt. 74-1 at 2. The '623 Provisional also does not mention any relation to sleep, mattresses, bedding, or sleep monitoring. *See generally id.*

The '367 Application, the '087 Application and the '848 Application were based on work conducted in summer and fall of 2019, and do not fit into the Product Development Scope. Each of these applications is directed to monitoring illnesses and health-related events. *Id.* These patent applications noted that “[t]he long-term collected data can be used in both a medical and home setting to learn and predict patterns of sleep, illness, etc. for a subject” for the purpose of monitoring for illnesses and ailments, but does not mention or claim it can be used for monitoring or improving sleep quality. Ex. 2 ('367 App.) ¶ 38; Ex. 3 ('087 App.) at ¶ 42; Ex. 4 ('848 App.) at ¶ 38.

The remaining Invention-at-Issue, the '385 Application, is also outside the Product Development Scope as it does not monitor sleep, and instead monitors blood pressure. In

November 2019, Defendants developed a new idea for converting BCG signals into pseudo-electrocardiogram (ECG) signals. Young Decl. ¶47. The '385 Application was a continuation-in-part of the '848 Application, adding disclosures about converting BCG data to cardio-respiratory data. *See* Dkt. 119-4 ('385 App.) at Abstract, ¶¶ 5, 23, 30, 69-74, 78-85, 92-98, Figs. 7-12, 14-15. These disclosures deal explicitly with blood-pressure monitoring and related conditions, and do not deal with sleep, sleep monitoring, mattresses, or bedding. Thus, none of the Inventions-at-issue are covered by the Consulting Agreements, and Plaintiff cannot show that it is entitled to ownership of the Inventions-at-Issue.

## **B. Sleep Number Fails to Prove Irreparable Harm**

Plaintiff's motion should also be denied because its "failure to demonstrate irreparable harm is a sufficient ground to deny a preliminary injunction." *Gen. Motors Corp.*, 563 F.3d 312, 320 (8<sup>th</sup> Cir. 2019). "Speculative injury is insufficient to justify a preliminary injunction, and a moving party's long delay after learning of the threatened harm may indicate that the harm is neither great nor imminent." *Munster Real Estate, LLC v. Webb Bus. Promotions, Inc.*, No. 18-cv-2120 (DWF/ECW), 2018 WL 5314951, at \*4 (D. Minn. Oct. 26, 2018) (citing *Novus Franchising, Inc. v. Dawson*, 725 F.3d 885, 894-95 (8<sup>th</sup> Cir. 2013)). Here, Sleep Number's dilatory request and speculative allegations of harm are fatal to its motion.

### **1. Plaintiff Unreasonably Delayed Seeking Relief**

Sleep Number has delayed seeking injunctive relief in this case, and Courts have held that "delay alone may justify the denial of a preliminary injunction when the delay is

inexplicable in light of a plaintiff's knowledge of the conduct of the defendant." *Modern Point, LLC v. ACU Dev., LLC*, No. 19-CV-668 (NEB/HB), 2020 WL 6305983, at \*9 (D. Minn. Oct. 28, 2020) (citing *Novus Franchising, Inc. v. Dawson*, 725 F.3d 885, 894 (8th Cir. 2013)).

This District has held that even presumed harms are negated if a party delays in seeking injunctive relief. *See McCabe v. AIR-serv Grp., LLC*, No. CIV. 07-4553 RHK/JSM, 2007 WL 4591932, at \*6 (D. Minn. Dec. 28, 2007). In *McCabe*, the plaintiff delayed seven months before filing for preliminary injunction, offering "no explanation or justification for his delay other than discussions between the parties." *Id.* The Court held that this delay "weighs against any presumption of irreparable harm." *Id.*; *see also Silber v. Barbara's Bakery, Inc.*, 950 F.Supp.2d 432, 441 (E.D.N.Y. June 14, 2013) (finding five-month delay in moving for preliminary injunction defeated a finding of irreparable harm); *Nzeako v. HSBC Bank*, No. 3:15-CV-2143-D, 2015 WL 7731371, at \*2 (N.D. Tex. Oct. 6, 2015) (holding 25 day delay in filing motion for preliminary injunction undermines plaintiff's position that there is a substantial threat of irreparable harm); *Kerr Corp. v. N. Am. Dental Wholesalers, Inc.*, No. 11-cv-0313 DOC CWX, 2011 WL 2269991, at \*3 (C.D. Cal. June 9, 2011) (holding that an eight month delay "necessarily suggest[s] that a lack of urgency exists").

Sleep Number has no excuse for its delay. Sleep Number initiated suit on July 2, 2020, and acknowledges that it knew about the '848 Application since at least April 9, 2020. Dkt. 124 at 9. Sleep Number also knew about the precise subject matter of UDP's work since at least March 19, 2018, when Young and Hewitt informed Sleep Number's

Chief Product Officer of its research and development. Young Decl. ¶21. Young and Hewitt continued to inform Sleep Number of their work as it progressed. *See id.* ¶29; *id.*, Ex. B (PowerPoint presentation given to Sleep Number executives on October 25, 2018). Plaintiff has delayed seeking injunctive relief for over seven months and it has no plausible explanation for its delay. *See* Dkt. 124 at 23-28.

## **2. Plaintiff Identifies Only Speculative Harms**

Sleep Number also fails to point to any concrete harm it will suffer if Defendants can continue to prosecute patent applications. Sleep Number claims that it will suffer irreparable harm if Defendants (1) make any concessions of priority date or scope of claims in prosecuting their patent applications, or (2) file any new patent applications covered by the Consulting Agreements. But these purported harms are purely speculative, and “[s]peculative injury is insufficient to justify a preliminary injunction.” *Munster Real Estate, LLC v. Webb Bus. Promotions, Inc.*, No. 18-cv-2120 (DWF/ECW), 2018 WL 5314951, at \*4 (D. Minn. Oct. 26, 2018).

### *a. Defendants’ Concession of Priority Claims to the ’613 Provisional Does Not Harm Either Party*

First, Plaintiff argues that it has been harmed because Defendants intentionally disclaimed an earlier priority date in its pending applications “to undermine the patents and their true owner.” Dkt. 124 at 25. However, disclaimers of scope or priority date are regular actions in the course of prosecuting a patent application. *See* MPEP §1490; *Union Oil Co. of California v. Atl. Richfield Co.*, 208 F.3d 989, 1000 (Fed. Cir. 2000) (“patent



applicant broadly disclosed in the original patent application but then narrowed his claims during prosecution.”).

Sleep Number’s accusation is also wrong. Defendants’ decided to concede priority to the ’613 Provisional because the ’623 Provisional described inventions that were not disclosed in the ’613 Provisional. Defendants were merely honoring their obligations of candor to the Patent Office. *See* 37 CFR § 1.56; MPEP §2001. As explained above, the technology disclosed in the ’613 Application was abandoned in December 2018 to focus on better and more innovative technologies. *See* Section II.E.2, *supra*. Thus, the ’613 Application did not provide any disclosures that were relevant to Defendants’ current product development, and in turn, the ’623 Provisional. *Id.* ¶48. This was hardly an attempt to manufacture a defense, but rather a realization that UDP could not claim priority to the disclosures in the ’613 Provisional. Moreover, while Sleep Number speculates that additional prior art may now be relevant to the later patent applications (Dkt. 124 at 25), it is unable to identify a single now-relevant invalidating reference or any concrete harm resulting from it.

Similarly, Plaintiff argues that continued prosecution of the pending applications, such as responding to an “office action,” might cause the scope of the patents to change. Dkt. 124 at 26-27. But Plaintiff admits that no office actions are currently pending and that while a future response to an office action “could” change the claim scope, such negotiations with the patent examiner are routine in order to reach patentable claims. *Id.* Further, UDP’s patent prosecuting attorney has confirmed that no office actions are expected until at least July 2021 (based on the USPTO First Office Action estimator). Nesti

Decl. ¶4. And UDP's CEO and CTO confirm that these pending applications are incredibly important to UDP and that it intends to prosecute these patents in good faith to obtain protection for its valuable innovations. Young Decl. ¶¶49-50. Indeed, both parties' interests are actually aligned here—each believes it has ownership rights in the pending applications and wants to successfully prosecute them into issued patents. Plaintiff's brief contains nothing but speculation that some future filing could impact the scope of the patents which could somehow harm Sleep Number if it later succeeds in asserting ownership over the underlying inventions. But such speculative harm is insufficient to justify any preliminary injunction, let alone the extremely burdensome injunction that Plaintiffs seek. *See Munster*, 2018 WL 5314951 at \*4.

Plaintiff cites to a number of cases that supposedly found irreparable harm arising from prosecution of patent applications, but none of them are analogous here. In *Compact Van Equip. Co., Inc. v. Leggett & Platt, Inc.*, the defendant started a competing business and attempted to patent the very invention he had invented during his previous employment. *See* 566 F.2d 952, 954 (5th Cir. 1978). The Court found there was irreparable harm from allowing the defendant to prosecute its patent application because it would have disclosed his employer's trade secrets. *Id.* Here, Sleep Number cannot identify any irreparable harm from a slightly later priority date of the already-published patent applications. Sleep Number also does not identify any trade secret it claims were being improperly used by Defendants.

b. *Plaintiff's Claim of Harm from Additional Applications is Speculative.*

Sleep Number also claims that it could be harmed “*if* Defendants file additional patent applications covered by the Consulting Agreements” because those applications *might* contain Sleep Number trade secrets, and *might* be published *sometime in the future* (thus disclosing Sleep Number’s trade secrets). Dkt. 124 at 25 (emphasis added). This is far too speculative to satisfy the “likely” requirement of irreparable harm. *See MPAY Inc. v. Erie Custom Computer Applications, Inc.*, 970 F.3d 1010, 1020 (8th Cir. 2020) (affirming denial of preliminary injunction based on “possible” disclosures of trade secrets because “[m]erely demonstrating the possibility of harm is not enough.”).

Defendants have already produced design documents and drafts related to its pending patent applications that have not yet been published by the Patent Office. And Plaintiff has identified no trade secrets in any of UDP’s published applications<sup>F</sup>. There is no risk that a publication, let alone an imminent publication based on already-filed patent applications, will expose Sleep Number’s trade secrets or harm it in any way. Regardless, any additional patent applications that claim priority to the earlier published applications would necessarily rely on the same disclosures that have already been published. And any new applications that do not rely on the previous disclosures would post-date the Consulting Agreement’s termination by over two years and are exceedingly unlikely to contain any Sleep Number information.

The facts here are analogous to those in *A-1 Nat’l Fire Co. LLC v. Freedom Fire LLC*, where the plaintiff claimed it would be irreparably harmed if its former employees

“use or disclose confidential information as they have apparently already done.” No. 20-CV-1706 (WMW/DTS), 2020 WL 5105793, at \*6 (D. Minn. Aug. 31, 2020) (internal quotes omitted). The Court acknowledged there could be damages for the past disclosures of confidential information if plaintiff proved its claims, but rejected possibility of future harms as overly speculative. *Id.* Here, Plaintiff’s claims of future harms are equally speculative.

On the other hand, Sleep Number only cites to *Centrifugal Acquisition Corp. v. Moon*, where the court found irreparable harm established “by the *imminent publication*” of a patent application “of the proprietary process *deemed to be a trade secret by the Court.*” No. 09-C-327, 2012 WL 718999, at \*2 (E.D. Wis. Mar. 5, 2012). In *Centrifugal*, the irreparable harm was caused by the certain and imminent publication of a patent application disclosing a process that was already “deemed to be a trade secret by the Court.” *Id.* Unlike *Centrifugal*, Sleep Number has not identified a specific patent application that may be published and instead seeks extraordinarily broad relief that interferes with the overall prosecution strategy related to UDP’s patent applications.

### **C. The Balance of Equities Does Not Favor an Injunction**

The balance of equities also weighs in favor of UDP. Whereas Sleep Number delayed in filing and only identifies speculative harms, Defendants would suffer certain and irreparable harms if the Court grants this preliminary injunction.

Defendants would be irreparably harmed by significant delays in the issuance of their patents resulting from the proposed injunction. A patent term begins “on the date on which the patent issues” and ends “20 years from the date on which the application for the

patent was filed in the United States.” 35 U.S.C. § 154. The more time UDP’s patents spend in prosecution, the less time they are enforceable. Sleep Number contends that Defendants can merely abandon their patent applications and file continuations, but patent terms for applications that claim priority to an earlier reference begin “from the date on which the earliest such application was filed.”<sup>6</sup> *Id.* Thus, the proposed injunction (which would last the entirety of this case) would significantly shorten the life of the patents, and deprive Defendants of the ability to enforce and license the patents. Importantly, Sleep Number’s proposed injunction would also harm Sleep Number if it is declared the owner of these patents, as the delay would cause the patents to have shorter lifetimes. This further shows that Sleep Number is more concerned with thwarting a rival than about protecting its intellectual property.

Sleep Number also seeks to prohibit Defendants from filing any new patent applications without Court approval. Dkt. 127. Under Sleep Number’s proposal, Defendants would need to delay the filing of any new applications for months while the parties exchange briefs, factual submissions and potential expert testimony. The Court would then need to decide a highly technical set of issues, further delaying the priority date and potentially shortening the term of the patent, opening the patent to additional prior art, and risking invalidating what would otherwise be allowable claims.

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<sup>6</sup> Sleep Number does not limit its request to filings with the USPTO, and appears to seek enjoinder of international applications as well. *See* Dkt. 127. Foreign patent offices do not have the same rules and procedures as the USPTO, and delays could have irreparable consequences. *See* Pat. Cooperation Treaty, Article 22; *see also* Nesti Decl. ¶¶8-9.

The proposed injunction would cause significant harms to UDP. As a start-up whose current focus is research and development, most of the company's value is based on its intellectual property. Young Decl. ¶¶52-55. It would be extremely difficult, or outright impossible, for a research and development start-up in a highly technical space like this to raise any money from investors, or even retain current investors, if it is unable to file new patents on inventions that it may conceive of during the pendency of this case. *Id.* UDP does not currently have any products in the market; if it cannot raise capital for its continued research and development, it will be forced to shut down or lay off employees. *Id.* Indeed, Sleep Number's meritless claims have already had just such an effect. *Id.*

Additionally, an indefinite ban on prosecuting patents would make it very difficult for UDP to hire new engineers or even retain its current ones. *Id.* ¶58. Being a named inventor on a patent is important in both the technical and medical industries. *Id.* Any current or prospective employee would be discouraged from working with UDP or helping UDP develop its life saving technologies, if that person would risk losing the opportunity to patent and monetize their contributions. *Id.*

Finally, Sleep Number's request would violate Defendants' rights under the Petition Clause of the First Amendment, which protects the right to petition all branches and agencies of government for action. *Miller v. Miller*, No. 3:18-CV-01067 (JCH), 2018 WL 3574867, at \*3 (D. Conn. July 25, 2018) (denying injunction request because doing so "risks infringing on [non-movant's] First Amendment right to petition the government for a redress of grievances, which the Supreme Court has described as among the most precious of the liberties safeguarded by the Bill of Rights.") (internal quotations omitted).

Prohibiting Defendants from prosecuting pending patent applications and filing new applications is a restriction on Defendants' rights to petition the USPTO, a federal agency. These harms are disproportionate to any hypothetical harm that Sleep Number would suffer. Thus, the balance of equities heavily disfavors preliminary injunction.

**D. Issuing a Preliminary Injunction Would Be Contrary to the Public Interest**

Sleep Number's proposed preliminary injunction would be contrary to the public interest, because it inhibits protection of intellectual property. "In litigation such as this involving a medical product, the public has two primary interests—i.e., the protection of intellectual-property rights and access to necessary and effective medical care." *Abbott Cardiovascular Sys., Inc. v. Edwards Lifesciences Corp.*, No. 19-cv-149 (MN), 2019 WL 2521305, at \*25 (D. Del. June 6, 2019) (internal quotations omitted). Here, the Inventions-at-issue involve revolutionary technology that could predict congestive heart failure, COVID-19, or other catastrophic health-related events. An injunction here is contrary to public interests because it discourages innovation for life-saving medical products and makes it much more difficult for UDP to bring products to market. *See id.*

Sleep Number argues that the public interest is served by enforcing valid business agreements. Dkt. 124 at 30; *see Bos. Sci. Corp. v. Duberg*, 754 F. Supp. 2d 1033, 1042 (D. Minn. 2010). But Sleep Number has not shown that the Consulting Agreements prohibit Defendants from pursuing their unrelated venture and in fact allowed Defendants to do exactly what they did. The sorts of restrictions that Sleep Number advances is a much weaker interest because of the other interests in developing life-saving technologies and

the public interest in preserving and fostering business competition and innovation. *Cambria Co. LLC v. Schumann*, No. 19-CV-3145 (NEB/TNL), 2020 WL 373599, at \*8 (D. Minn. Jan. 23, 2020).

**V. SLEEP NUMBER SEEKS UNPRECEDENTED RELIEF THAT ALTERS THE STATUS QUO**

Sleep Number’s proposed injunction does not merely seek to prohibit Defendants from altering the status quo, but certain requests seek to affirmatively force Defendants to prosecute their patents (or abandon them) in a way that harms UDP, as well as indefinitely restrain UDP from filing any new applications without prior court approval, regardless of subject matter.

The language of Sleep Number’s Proposed Order is clear that certain provisions seek a mandatory injunction that alters the status quo. *See* Dkt. 127. Sleep Number seeks to order Defendants to not respond to any Office Action issued by the Patent Office, and instead “(1) pay any and all necessary fees for a three month extension (allowing for a six month response period in total) and (2) file a continuation of [each application] that does not remove or limit any claims of priority nor alter or abandon any claims listed in [the application].” *Id.* These requests demand affirmative actions by UDP and do not seek to just prohibit activities. Far from preserving the status quo, these proposals seek to force UDP to take actions to delay prosecution and hamstring UDP’s ability to seek patent rights based upon feedback from the Patent Office. Similarly, the request to indefinitely restrain UDP from filing any new applications would also cause UDP to forgo its business plan on continuing to innovate and seek patents on its new innovations, potentially reducing the



life of any later-issued patent or causing an otherwise allowable patent to be rejected in view of prior art arising during the forced delay in filing. Blocking UDP from continuing its normal course of business operations fails to preserve the status quo.

Sleep Number's requested relief in the alternative, to allow a third party to prosecute Defendants' pending patent applications without the inventors' inputs, is similarly unprecedented. Unsurprisingly, Sleep Number identifies no case where such an extraordinary remedy has been granted. Indeed, the only two cases Sleep Number cites to that granted such relief involve different circumstances and different relief. In *Centrifugal*, the movant was facing the imminent publication of a proprietary process that was deemed to be a trade secret by the Court in a stipulated injunction. *Centrifugal*, 2012 WL 718999, at \*2. Because the *imminent* publication involved the expressly prohibited action, the Court granted the injunction. *Id.* Here, Sleep Number cannot identify any imminent publication of its trade secrets or confidential information. Even with those facts, the *Centrifugal* Court did not grant a blanket prohibition on the defendant prosecuting its patents.

In *Dermworx*, the defendant was still employed by plaintiff, and the Court held that the invention claimed in the patent application at issue was developed in the course of defendant's employment and was indisputably within the scope of plaintiff's business. *Dermworx, Inc. v. Cooper*, No. 09-cv-60284, 2009 WL 1726333, at \*6 (S.D. Fla. June 16, 2009). As described above, such is not the case here—even crediting Sleep Number's version of the facts, Mr. Young and Mr. Hewitt were only consultants during the relevant period. And in that decision as well, the Court did not pass a blanket injunction on the defendants' prosecuting their patents.

## VI. SLEEP NUMBER SHOULD POST BOND OF \$10,000,000

Defendants have explained why no preliminary injunction should issue. If, however, the Court grants this preliminary injunction, it should require Sleep Number to post a bond of at least \$10,000,000—commensurate to the potential harm to Defendants from the proposed injunction. “The court may issue a preliminary injunction or a temporary restraining order only if the movant gives security in an amount that the court considers proper to pay the costs and damages sustained by any party found to have been wrongfully enjoined or restrained.” Fed. R. Civ. P. 65(c). “Courts in this circuit have almost always required a bond before issuing a preliminary injunction.” *Richland/Wilkin Joint Powers Auth. v. U.S. Army Corps of Engr's*, 826 F.3d 1030, 1043 (8th Cir. 2016).

Sleep Number’s proposed injunction requires Defendants to delay prosecuting and/or abandon their current patent applications, and forbids Defendants from filing additional patent applications on new inventions without Court approval. *See* Dkt. 127 (proposed order granting injunction). Defendants would suffer significant harm by losing months or years off their patent term, given that the term of a patent is based on its earliest claimed non-provisional priority date. 35 U.S.C. § 154. This translates directly to a loss of revenues from patented products or licensing deals, as well as loss of monetary damages against infringers. Sleep Number’s proposed injunction may also prevent UDP from protecting its inventions and ideas at all, such as with foreign patent applications which cannot be delayed in view of the filing dates of the Patent Cooperation Treaty applications, which may in turn prevent it from attracting investors and commercializing its products. *Id.* *See* Pat. Cooperation Treaty, Article 22; Nesti Decl. ¶¶8-9.

Based on valuations of previous start ups founded by Young and Hewitt, particularly in the biomedical technology and diagnostics space, *each* issued UDP patent will likely add anywhere from \$8 million to \$15 million to the valuation of UDP. Young Decl. ¶55; Hewitt Decl. ¶24. Shortening the terms of these patents would almost certainly affect their value and the company's valuation, whereas a complete loss of those patent rights would directly translate to a comparable loss to the company's value. Young Decl. ¶55. Given the significant value these patents have to Defendants, as well as the incredible breadth of the proposed injunction, it is only fair that Sleep Number post a bond of commensurate value. Given that the loss of rights in a single patent can cause a decrease in valuation between \$8 to \$15 million, a \$10 million bond is conservative.

Additionally, Sleep Number's proposed injunction would require Defendants to spend many thousands of dollars in fees at the patent office and with its attorneys to delay, or even re-file, the patent applications currently in prosecution, and to seek leave of the Court to file new patent applications. *See* Dkt. 127. Given the number and complexity of the applications at issue, and the costs of filing a request for continuation or filing entirely new applications, Defendants are facing significant direct costs.<sup>7</sup> Although the proposed order states that Defendants may invoice Plaintiffs for these costs, this requirement is essentially toothless, because the order also states that "[a]ny failure to pay within the 30 day period, however, does not relieve Defendants of any obligations under this Order."

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<sup>7</sup> The first request for continuation costs \$1,360, and the second request costs \$2,000. Total costs for filing and prosecuting a new patent can cost \$15,000. *See USPTO fee schedule*, U.S. PATENT & TRADEMARK OFFICE (Jan. 2, 2021) <https://www.uspto.gov/learning-and-resources/fees-and-payment/uspto-fee-schedule>.

Dkt. 127 ¶ 8. Sleep Number thus attempts to force Defendants to pay many thousands of dollars, and argues it need not post a bond in the meanwhile.

Sleep Number attempts to analogize the relief requested with antisuit injunction. But in *ProBatter Sports, LLC v. Joyner Techs., Inc.*, the granted injunction only stayed parallel litigation of a “mirror-image suit” against defendant’s customers. 463 F. Supp. 2d 949, 958 (N.D. Iowa 2006). There the court held that any harms were caused by the plaintiff’s own decision to file multiple parallel actions. But Sleep Number has no reason to look to antisuit cases for analogies. The *Centrifugal* court, which Sleep Number argues grants the same form of relief, ordered that the movant “must post a \$100,000.00 bond” to enjoin prosecution of *a single* patent application. *See Centrifugal*, 2012 WL 718999, at \*3. Here, Sleep Number explicitly seeks to enjoin prosecution of *six* pending applications, and also seeks to prohibit Defendants from filing any additional patents. Because the potential for harm to Defendants is significantly greater, Sleep Number should post a proportionately greater bond.

## VII. CONCLUSION

Each of the four factors weigh against preliminary injunction. For these reasons, the Court should deny Sleep Number’s Motion for Preliminary Injunction.

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